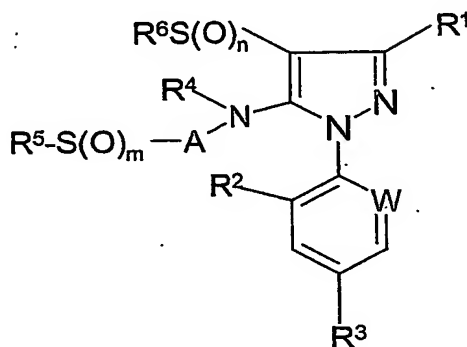


CLAIMS

1. A method of controlling parasites in or on an animal comprising administering to the animal a parasitically effective amount of a 5-substituted-alkylaminopyrazole derivative of formula (I):



(I)

wherein:

R¹ is CN;

W is C-halogen, C-CH₃ or N;

R² is hydrogen, halogen or CH₃;

R³ is (C₁-C₃)-haloalkyl, (C₁-C₃)-haloalkoxy or S(O)ₚ-(C₁-C₃)-haloalkyl;

R⁴ is hydrogen, (C₂-C₆)-alkenyl, (C₂-C₆)-haloalkenyl, (C₂-C₆)-alkynyl, (C₂-C₆)-haloalkynyl, (C₃-C₇)-cycloalkyl, CO-(CH₂)ₑ-R⁷, COR⁸, CO-(CH₂)ₑ-R⁹, -CO-(C₁-C₄)-alkyl-(C₁-C₆)-alkoxy, -CO₂-(CH₂)ₑ-R⁷, CO₂R⁸, -CO₂-(CH₂)ₑ-R⁹, -CO₂-(C₃-C₇)-cycloalkyl, -CO₂-(C₁-C₄)-alkyl-(C₃-C₇)-cycloalkyl, -CO₂-(C₃-C₆)-alkenyl, -CO₂-(C₃-C₆)-alkynyl, CONR¹⁰R¹¹, -CH₂R⁷, -CH₂R⁹, OR⁷, OR⁸ or OR⁹; or (C₁-C₆)-alkyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C₁-C₆)-alkoxy, (C₁-C₆)-haloalkoxy, (C₃-C₇)-cycloalkyl, S(O)ₚR⁸, CO₂-(C₁-C₆)-alkyl, -O(C=O)-(C₁-C₆)-alkyl, NR¹⁰COR¹², NR¹⁰R¹¹, CONR¹⁰R¹¹, SO₂NR¹⁰R¹¹, OH, CN, NO₂, OR⁷, NR¹⁰SO₂R⁸, COR⁸ and OR⁹;

A is (C₁-C₁₂)-alkylene, or (C₁-C₁₂)-haloalkylene in which 2, 3 or 4 adjacent carbon atoms optionally form part of a (C₃-C₈)-cycloalkyl ring which is unsubstituted or substituted by one or more radicals selected from the group consisting of (C₁-C₆)-alkyl and halogen; or is (C₁-C₁₂)-alkylene or (C₁-C₁₂)-haloalkylene in which last

two mentioned groups a methylene moiety is replaced by a group selected from $-C(=O)-$, $-C(=NH)-$, $-O-$, $-S-$ and $-NR^{15}-$, with the proviso that the replacing group is not bonded to the adjacent $S(O)_m$ group or N atom; or is (C_2-C_{12}) -alkenylene or (C_2-C_{12}) -haloalkenylene;

R^5 is H, (C_3-C_6) -alkenyl, (C_3-C_6) -haloalkenyl, (C_3-C_6) -alkynyl, (C_3-C_6) -haloalkynyl, (C_3-C_7) -cycloalkyl, $-(CH_2)_qR^7$, $-(CH_2)_qR^9$ or $NR^{10}R^{11}$ provided that for the last mentioned radical m is 2; or is (C_1-C_6) -alkyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_6) -alkoxy, (C_1-C_6) -haloalkoxy, (C_3-C_6) -alkenyloxy, (C_3-C_6) -haloalkenyloxy, (C_3-C_6) -alkynyloxy, (C_3-C_6) -haloalkynyloxy, (C_3-C_7) -cycloalkyl, $S(O)_pR^8$, CN, NO_2 , OH, COR^{10} , $NR^{10}COR^{12}$, $NR^{10}SO_2R^8$, $CONR^{10}R^{11}$, $NR^{10}R^{11}$, $S(O)_pR^7$, $S(O)_pR^9$, OR^7 , OR^9 and CO_2R^{10} ; or when A is (C_1-C_{12}) -alkylene or (C_1-C_{12}) -haloalkylene and R^5 is (C_1-C_6) -alkyl unsubstituted or substituted by one or more halogen radicals, one or more of the carbon atoms of R^5 may, together with $S(O)_m$ and one or more of the carbon atoms of A, form a 5- or 6-membered ring;

R^6 is (C_1-C_6) -alkyl, (C_1-C_6) -haloalkyl, (C_2-C_6) -alkenyl, (C_2-C_6) -haloalkenyl, (C_2-C_6) -alkynyl or (C_2-C_6) -haloalkynyl;

R^7 is phenyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_6) -alkyl, (C_1-C_6) -haloalkyl, (C_1-C_6) -alkoxy, (C_1-C_6) -haloalkoxy, CN, NO_2 , $S(O)_pR^8$, COR^{11} , COR^{13} , $CONR^{10}R^{11}$, $SO_2NR^{10}R^{11}$, $NR^{10}R^{11}$, OH, SO_3H and (C_1-C_6) -alkylideneimino;

R^8 is (C_1-C_6) -alkyl or (C_1-C_6) -haloalkyl;

R^9 is heterocyclyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_4) -alkyl, (C_1-C_4) -haloalkyl, (C_1-C_4) -alkoxy, (C_1-C_4) -haloalkoxy, NO_2 , CN, $CO_2(C_1-C_6)$ -alkyl, $S(O)_pR^8$, OH and oxo;

R^{10} and R^{12} are each independently H, (C_1-C_6) -alkyl, (C_1-C_6) -haloalkyl, (C_3-C_6) -alkenyl, (C_3-C_6) -haloalkenyl, (C_3-C_6) -alkynyl, (C_3-C_6) -haloalkynyl, (C_3-C_6) -cycloalkyl, $-(C_1-C_6)$ -alkyl- (C_3-C_6) -cycloalkyl, $-(CH_2)_qR^{13}$ or $-(CH_2)_qR^9$; or

R^{10} and R^{11} and/or R^{10} and R^{12} each together with the respective attached N atom form a five- or six-membered saturated ring which optionally contains an additional hetero atom in the ring which is selected from O, S and N, the ring being

unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C₁-C₆)-alkyl and (C₁-C₆)-haloalkyl;

R¹¹ and R¹⁴ are each independently H, (C₁-C₆)-alkyl, (C₁-C₆)-haloalkyl, (C₃-C₆)-cycloalkyl or -(C₁-C₆)-alkyl-(C₃-C₆)-cycloalkyl;

R¹³ is phenyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C₁-C₆)-alkyl, (C₁-C₆)-haloalkyl, (C₁-C₆)-alkoxy, (C₁-C₆)-haloalkoxy, CN, NO₂, S(O)_pR⁸ and NR¹¹R¹⁴;

R¹⁵ is R¹¹ or -(CH₂)_qR¹³;

m, n and p are each independently zero, one or two;

q is zero or one; and

each heterocyclyl in the above-mentioned radicals is independently a heterocyclic radical having 3 to 7 ring atoms and 1, 2 or 3 hetero atoms in the ring selected from the group consisting of N, O and S;

or a pesticidally acceptable salt thereof.

2. The method as claimed in claim 1, wherein the symbols and indices in formula (I) have the following meanings:

R¹ is CN;

W is C-Cl;

R² is chlorine;

R³ is CF₃ or OCF₃;

R⁴ is hydrogen, CO₂-(C₁-C₃)-alkyl, or (C₁-C₆)-alkyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen and (C₁-C₃)-alkoxy;

A is (C₁-C₄)-alkylene;

R⁵ is (C₃-C₆)-cycloalkyl, -(CH₂)_qR⁷, (C₁-C₆)-alkyl or (C₁-C₆)-haloalkyl; or when R⁵ is (C₁-C₆)-alkyl, one or more of the carbon atoms of the R⁵ group may, together with the S(O)_m group and one or more of the carbon atoms of A, form a 5- or 6-membered ring;

R⁶ is CF₃, CF₂Cl, CFCl₂, CBrF₂ or CHF₂;

R⁷ is phenyl;

m and n are each independently zero, one or two; and

q is zero or one.

3. The method as claimed in claim 1, wherein the symbols and indices in formula (I) have the following meanings:

R^1 is CN;

W is C-Cl;

R^2 is Cl;

R^3 is CF_3 or OCF_3 ;

R^4 is hydrogen, (C_2-C_6) -alkenyl, (C_2-C_6) -alkynyl, (C_3-C_7) -cycloalkyl, COR^9 (where R^9 is tetrahydrofuryl), $-COCH_2-(C_1-C_6)$ -alkoxy, $-CO_2-(C_1-C_6)$ -alkyl, $-CO_2-(CH_2)_q-R^7$, OR^7 , OR^8 or OR^9 (where R^9 is pyridyl); or (C_1-C_6) -alkyl unsubstituted or substituted by one or more radicals selected from the group consisting of (C_1-C_6) -alkoxy, (C_3-C_7) -cycloalkyl and $S(O)_pR^8$;

A is (C_1-C_6) -alkylene in which 2, 3 or 4 adjacent carbon atoms optionally form part of a (C_3-C_6) -cycloalkyl ring;

R^5 is (C_3-C_6) -alkenyl, (C_3-C_7) -cycloalkyl, $-(CH_2)_qR^7$ or $NR^{10}R^{11}$ provided that for the last mentioned radical X is SO_2 ; or is (C_1-C_6) -alkyl or (C_1-C_6) -haloalkyl;

R^6 is CF_3 , CF_2Cl , $CFCI_2$, $CBrF_2$, CHF_2 or CH_3 ;

R^7 is phenyl unsubstituted or substituted by one or more (C_1-C_6) -alkoxy groups;

R^8 is (C_1-C_6) -alkyl;

R^{10} and R^{11} are the same or different (C_1-C_6) -alkyl; or

R^{10} and R^{11} together with the attached N atom form a five- or six-membered saturated ring which optionally contains an additional hetero atom in the ring which is selected from O, S and N;

m and n are each independently zero, one or two; and

q is zero or one.

4. 5-Substituted-alkylaminopyrazole derivatives of formula (I) as in claim 1, or pesticidally acceptable salts thereof, wherein the symbols and indices in formula (I) have the following meanings:

R^1 is CN;

W is C-halogen or C- CH_3 ;

R^2 is hydrogen, halogen or CH_3 ;

R^3 is (C_1-C_3) -haloalkyl, (C_1-C_3) -haloalkoxy or $S(O)_p$ -(C_1-C_3)-haloalkyl;

R^4 is (C_2-C_6) -alkenyl, (C_2-C_6) -haloalkenyl, (C_2-C_6) -alkynyl, (C_2-C_6) -haloalkynyl, (C_3-C_7) -cycloalkyl, $CO-(CH_2)_q-R^7$, CO_2R^8 , $CO-(CH_2)_q-R^9$, $-CO-(C_1-C_4)$ -alkyl- (C_1-C_6) -alkoxy, $-CO_2-(CH_2)_q-R^7$, $-CO_2-(CH_2)_q-R^9$, $-CO_2-(C_3-C_7)$ -cycloalkyl, $-CO_2-(C_1-C_4)$ -alkyl- (C_3-C_7) -cycloalkyl, $-CO_2-(C_3-C_6)$ -alkenyl, $-CO_2-(C_3-C_6)$ -alkynyl, $CONR^{10}R^{11}$, $-CH_2R^7$, $-CH_2R^9$, OR^7 , OR^8 or OR^9 ; or (C_1-C_6) -alkyl which is substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_6) -alkoxy, (C_1-C_6) -haloalkoxy, (C_3-C_7) -cycloalkyl, $S(O)_pR^8$, $CO_2-(C_1-C_6)$ -alkyl, $-O(C=O)-(C_1-C_6)$ -alkyl, $NR^{10}COR^{12}$, $NR^{10}R^{11}$, $CONR^{10}R^{11}$, $SO_2NR^{10}R^{11}$, OH , CN , NO_2 , OR^7 , $NR^{10}SO_2R^8$, COR^8 and OR^9 ;

A is (C_1-C_{12}) -alkylene and (C_1-C_{12}) -haloalkylene in which 2, 3 or 4 adjacent carbon atoms optionally form part of a (C_3-C_8) -cycloalkyl ring which is unsubstituted or substituted by one or more radicals selected from the group consisting of (C_1-C_6) -alkyl and halogen; or is (C_1-C_{12}) -alkylene or (C_1-C_{12}) -haloalkylene in which last two mentioned groups a methylene moiety is replaced by a group selected from $-C(=O)-$, $-C(=NH)-$, $-O-$, $-S-$ and $-NR^{15}-$, with the proviso that the replacing group is not bonded to the adjacent $S(O)_m$ group or N atom; or is (C_2-C_{12}) -alkenylene or (C_2-C_{12}) -haloalkenylene;

R^5 is H, (C_3-C_6) -alkenyl, (C_3-C_6) -haloalkenyl, (C_3-C_6) -alkynyl, (C_3-C_6) -haloalkynyl, (C_3-C_7) -cycloalkyl, $-(CH_2)_qR^7$, $-(CH_2)_qR^9$ or $NR^{10}R^{11}$ provided that for the last mentioned radical m is 2; or is (C_1-C_6) -alkyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_6) -alkoxy, (C_1-C_6) -haloalkoxy, (C_3-C_6) -alkenyloxy, (C_3-C_6) -haloalkenyloxy, (C_3-C_6) -alkynyloxy, (C_3-C_6) -haloalkynyloxy, (C_3-C_7) -cycloalkyl, $S(O)_pR^8$, CN , NO_2 , OH , COR^{10} , $NR^{10}COR^{12}$, $NR^{10}SO_2R^8$, $CONR^{10}R^{11}$, $NR^{10}R^{11}$, $S(O)_pR^7$, $S(O)_pR^9$, OR^7 , OR^9 and CO_2R^{10} ; or when A is (C_1-C_{12}) -alkylene or (C_1-C_{12}) -haloalkylene and R^5 is (C_1-C_6) -alkyl unsubstituted or substituted by one or more halogen radicals, one or more of the carbon atoms of R^5 may, together with $S(O)_m$ and one or more of the carbon atoms of A, form a 5- or 6-membered ring;

R^6 is (C_1-C_6) -alkyl, (C_1-C_6) -haloalkyl, (C_2-C_6) -alkenyl, (C_2-C_6) -haloalkenyl, (C_2-C_6) -alkynyl or (C_2-C_6) -haloalkynyl;

R^7 is phenyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_6) -alkyl, (C_1-C_6) -haloalkyl, (C_1-C_6) -alkoxy, (C_1-C_6) -haloalkoxy, CN, NO_2 , $S(O)_pR^8$, COR^{11} , COR^{13} , $CONR^{10}R^{11}$, $SO_2NR^{10}R^{11}$, $NR^{10}R^{11}$, OH, SO_3H and (C_1-C_6) -alkylideneimino;

R^8 is (C_1-C_6) -alkyl or (C_1-C_6) -haloalkyl;

R^9 is heterocyclyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_4) -alkyl, (C_1-C_4) -haloalkyl, (C_1-C_4) -alkoxy, (C_1-C_4) -haloalkoxy, NO_2 , CN, $CO_2(C_1-C_6)$ -alkyl, $S(O)_pR^8$, OH and oxo;

R^{10} and R^{12} are each independently H, (C_1-C_6) -alkyl, (C_1-C_6) -haloalkyl, (C_3-C_6) -alkenyl, (C_3-C_6) -haloalkenyl, (C_3-C_6) -alkynyl, (C_3-C_6) -haloalkynyl, (C_3-C_6) -cycloalkyl, $-(C_1-C_6)$ -alkyl- (C_3-C_6) -cycloalkyl, $-(CH_2)_qR^{13}$ or $-(CH_2)_qR^9$; or

R^{10} and R^{11} and/or R^{10} and R^{12} each together with the respective attached N atom form a five- or six-membered saturated ring which optionally contains an additional hetero atom in the ring which is selected from O, S and N, the ring being unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_6) -alkyl and (C_1-C_6) -haloalkyl;

R^{11} and R^{14} are each independently H, (C_1-C_6) -alkyl, (C_1-C_6) -haloalkyl, (C_3-C_6) -cycloalkyl or $-(C_1-C_6)$ -alkyl- (C_3-C_6) -cycloalkyl;

R^{13} is phenyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_6) -alkyl, (C_1-C_6) -haloalkyl, (C_1-C_6) -alkoxy, (C_1-C_6) -haloalkoxy, CN, NO_2 , $S(O)_pR^8$ and $NR^{11}R^{14}$;

R^{15} is R^{11} or $-(CH_2)_qR^{13}$;

m, n and p are each independently zero, one or two;

q is zero or one; and

each heterocyclyl in the above-mentioned radicals is independently a heterocyclic radical having 3 to 7 ring atoms and 1, 2 or 3 hetero atoms in the ring selected from the group consisting of N, O and S.

5. 5-Substituted-alkylaminopyrazole derivatives of formula (I) as in claim 1, or pesticidally acceptable salts thereof, wherein:

R^1 is CN;

W is C-halogen or C- CH_3 ;

R^2 is hydrogen, halogen or CH_3 ;

R^3 is (C_1-C_3) -haloalkyl, (C_1-C_3) -haloalkoxy or $S(O)_p$ -(C_1-C_3)-haloalkyl;

R^4 is hydrogen, (C_1-C_6) -alkyl or COR^8 ;

A is (C_1-C_{12}) -alkylene and (C_1-C_{12}) -haloalkylene in which 2, 3 or 4 adjacent carbon atoms optionally form part of a (C_3-C_8) -cycloalkyl ring which is unsubstituted or substituted by one or more radicals selected from the group consisting of (C_1-C_6) -alkyl and halogen; or is (C_1-C_{12}) -alkylene or (C_1-C_{12}) -haloalkylene in which last two mentioned groups a methylene moiety is replaced by a group selected from $-C(=O)-$, $-C(=NH)-$, $-O-$, $-S-$ and $-NR^{15}-$, with the proviso that the replacing group is not bonded to the adjacent $S(O)_m$ group or N atom; or is (C_2-C_{12}) -alkenylene or (C_2-C_{12}) -haloalkenylene;

R^5 is H, (C_3-C_6) -alkenyl, (C_3-C_6) -haloalkenyl, (C_3-C_6) -alkynyl, (C_3-C_6) -haloalkynyl, (C_3-C_7) -cycloalkyl, $-(CH_2)_qR^7$, $-(CH_2)_qR^9$ or $NR^{10}R^{11}$ provided that for the last mentioned radical $S(O)_m$ is SO_2 ; or is (C_1-C_6) -alkyl substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_6) -alkoxy, (C_1-C_6) -haloalkoxy, (C_3-C_6) -alkenyloxy, (C_3-C_6) -haloalkenyloxy, (C_3-C_6) -alkynyloxy, (C_3-C_6) -haloalkynyloxy, (C_3-C_7) -cycloalkyl, $S(O)_pR^8$, CN, NO_2 , OH, COR^{10} , $NR^{10}COR^{12}$, $NR^{10}SO_2R^8$, $CONR^{10}R^{11}$, $NR^{10}R^{11}$, $S(O)_pR^7$, $S(O)_pR^9$, OR^7 , OR^9 and CO_2R^{10} ; or when A is (C_1-C_{12}) -alkylene or (C_1-C_{12}) -haloalkylene and R^5 is (C_1-C_6) -alkyl substituted by one or more halogen radicals, one or more of the carbon atoms of R^5 may, together with $S(O)_m$ and one or more of the carbon atoms of A, form a 5- or 6-membered ring;

R^6 is (C_1-C_6) -alkyl, (C_1-C_6) -haloalkyl, (C_2-C_6) -alkenyl, (C_2-C_6) -haloalkenyl, (C_2-C_6) -alkynyl or (C_2-C_6) -haloalkynyl;

R^7 is phenyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_6) -alkyl, (C_1-C_6) -haloalkyl, (C_1-C_6) -alkoxy, (C_1-C_6) -haloalkoxy, CN, NO_2 , $S(O)_pR^8$, COR^{11} , COR^{13} , $CONR^{10}R^{11}$, $SO_2NR^{10}R^{11}$, $NR^{10}R^{11}$, OH, SO_3H and (C_1-C_6) -alkylideneimino;

R^8 is (C_1-C_6) -alkyl or (C_1-C_6) -haloalkyl;

R^9 is heterocyclyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_4) -alkyl, (C_1-C_4) -haloalkyl, (C_1-C_4) -alkoxy, (C_1-C_4) -haloalkoxy, NO_2 , CN, $CO_2(C_1-C_6)$ -alkyl, $S(O)_pR^8$, OH and oxo;

R^{10} and R^{12} are each independently H, (C_1-C_6) -alkyl, (C_1-C_6) -haloalkyl, (C_3-C_6) -alkenyl, (C_3-C_6) -haloalkenyl, (C_3-C_6) -alkynyl, (C_3-C_6) -haloalkynyl, (C_3-C_6) -cycloalkyl, $-(C_1-C_6)$ -alkyl- (C_3-C_6) -cycloalkyl, $-(CH_2)_qR^{13}$ or $-(CH_2)_qR^9$; or

R^{10} and R^{11} and/or R^{10} and R^{12} each together with the respective attached N atom form a five- or six-membered saturated ring which optionally contains an additional hetero atom in the ring which is selected from O, S and N, the ring being unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_6) -alkyl and (C_1-C_6) -haloalkyl;

R^{11} and R^{14} are each independently H, (C_1-C_6) -alkyl, (C_1-C_6) -haloalkyl, (C_3-C_6) -cycloalkyl or $-(C_1-C_6)$ -alkyl- (C_3-C_6) -cycloalkyl;

R^{13} is phenyl unsubstituted or substituted by one or more radicals selected from the group consisting of halogen, (C_1-C_6) -alkyl, (C_1-C_6) -haloalkyl, (C_1-C_6) -alkoxy, (C_1-C_6) -haloalkoxy, CN, NO_2 , $S(O)_pR^8$ and $NR^{11}R^{14}$;

R^{15} is R^{11} or $-(CH_2)_qR^{13}$;

m, n and p are each independently zero, one or two;

q is zero or one; and

each heterocyclyl in the above-mentioned radicals is independently a heterocyclic radical having 3 to 7 ring atoms and 1, 2 or 3 hetero atoms in the ring selected from the group consisting of N, O and S.

6. 5-Substituted-alkylaminopyrazole derivatives of formula (I), or pesticidally acceptable salts thereof, wherein the symbols and indices in formula (I) have the following meanings:

R^1 is CN; R^2 is chlorine; R^3 is CF_3 or OCF_3 ; W is C-Cl; R^4 is hydrogen or (C_1-C_6) -alkyl; R^5 is (C_1-C_6) -alkyl; R^6 is CF_3 ; A is (C_2-C_3) -alkylene and m and n are each independently zero, one or two.

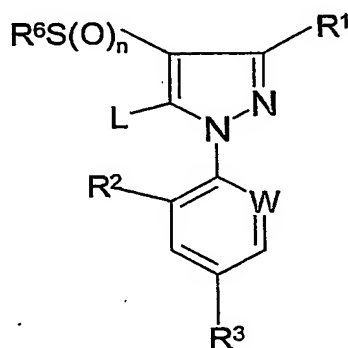
7. The use of compounds of formula (I) and pesticidally acceptable salts thereof according to one or more of claims 1 to 6 for the control of parasites in and on animals.

8. The use of compounds of formula (I) and pesticidally acceptable salts thereof according to one or more of claims 1 to 6 for preparing a veterinary medicament.

9. A pesticidal composition comprising a compound of formula (I) or a pesticidally acceptable salt thereof as defined in any one of claims 1 to 6, in association with a pesticidally acceptable diluent or carrier and/or surface active agent.

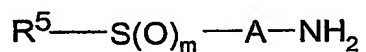
10. A process for the preparation of a compound of formula (I) or a salt thereof as defined in one or more of claims 1 to 6, which process comprises:

a) where R^1 , R^2 , R^3 , R^6 , W, A, m and n are as defined in claim 1, R^4 and R^5 are as defined in claim 1 with the exclusion of hydrogen, and R^4 is H, reacting a compound of formula (II):



(II)

wherein R^1 , R^2 , R^3 , R^6 , W and n are as defined in claim 1, and L is a leaving group, with a compound of formula (III):

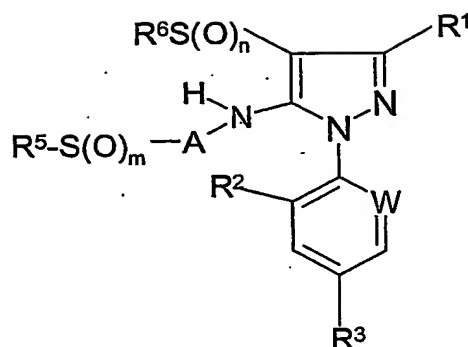


(III)

wherein m and A are as defined in claim 1 and R^5 is as defined in claim 1 with the exclusion of hydrogen; or

b) where R^1 , R^2 , R^3 , R^4 , R^6 , W, A, m and n are as defined in claim 1 and R^4 is as defined in claim 1 with the exclusion of hydrogen, OR^7 , OR^8 and OR^9 , and R^5 is as defined in claim 1 with the exclusion of H, reacting a compound of formula (IV):

93



(IV)

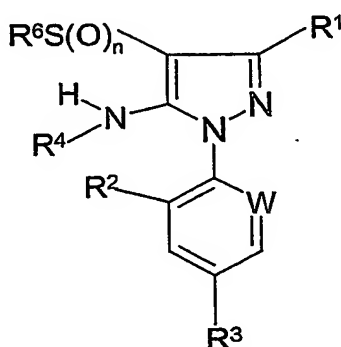
wherein R^1 , R^2 , R^3 , R^6 , W , A , m and n are as defined in claim 1 and R^5 is as defined in claim 1 with the exclusion of hydrogen, with a compound of formula (V):



(V)

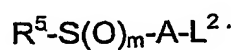
wherein R^4 is as defined in claim 1 with the exclusion of hydrogen, OR^7 , OR^8 and OR^9 , and L^1 is a leaving group; or

c) where R^1 , R^2 , R^3 , R^4 , R^6 , W , A , m and n are as defined in claim 1 and R^5 is as defined in claim 1 with the exclusion of hydrogen, reacting a compound of formula (VI):



(VI)

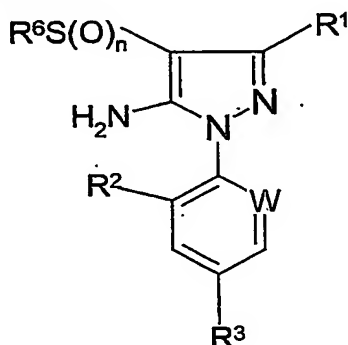
wherein R^1 , R^2 , R^3 , R^4 , R^6 , W and n are as defined in claim 1, with a compound of formula (VII):



(VII)

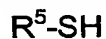
wherein m and A are as defined in claim 1, R^5 is as defined in claim 1 with the exclusion of hydrogen and L^2 is a leaving group;

d) where R^1 , R^2 , R^3 , R^6 , W and n are as defined in claim 1, R^5 is as defined in claim 1 with the exclusion of hydrogen, R^4 is hydrogen; A is $-\text{CH}_2-$ and m is zero, reacting a compound of formula (VIII):



(VIII)

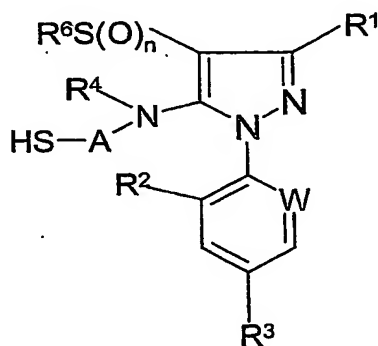
wherein R^1 , R^2 , R^3 , R^6 , W and n are as defined in claim 1, with a mixture of formaldehyde and a compound of formula (IX):



(IX)

wherein R^5 is as defined in claim 1 with the exclusion of hydrogen; or

e) where R^1 , R^2 , R^3 , R^4 , R^6 , A , W and n are as defined in claim 1, R^5 is as defined in claim 1 with the exclusion of hydrogen, and m is zero, reacting a compound of formula (X):



(X)

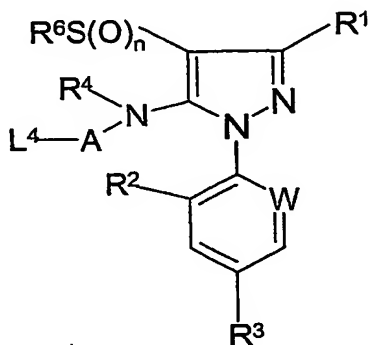
wherein R^1 , R^2 , R^3 , R^4 , A , W and n are as defined in claim 1, with a compound of formula (XI):



(XI)

wherein R^5 is as defined in claim 1 with the exclusion of hydrogen, and L^3 is a leaving group; or

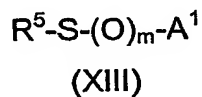
f) where R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , A, W and n are as defined in claim 1, and m is zero, reacting a compound of formula (XII):



(XII)

wherein R^1 , R^2 , R^3 , R^4 , A, W and n are as defined in claim 1 and L^4 is a leaving group, with a compound of formula (IX) as defined above; or

g) where R^1 , R^2 , R^3 , R^4 , R^6 , W, and n are as defined in claim 1, R^5 is as defined in claim 1 with the exclusion of hydrogen, and A is (C_2-C_{12}) -alkylene of which a two carbon chain links the $R^5-S(O)_m$ - and $-NR^4$ - groups, reacting a compound of formula (VI) above wherein R^1 , R^2 , R^3 , R^4 , R^6 , W and n are as defined in claim 1, with a compound of formula (XIII):

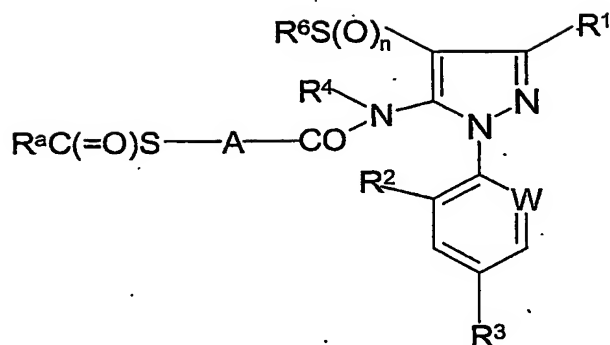


wherein R^5 is as defined in claim 1, and A^1 is a (C_2-C_{12}) -alkenyl group in which the double bond is adjacent to the $R^5-S(O)_m$ group; or

h) where R^1 , R^2 , R^3 , R^4 , R^6 , A, W, and n are as defined in claim 1, R^5 is hydrogen, and m is zero, reacting the corresponding compound of formula (XII) as defined above, with a compound of formula (XIV):



wherein R^a is (C_1-C_6) -alkyl, to give a compound of formula (XV):



(XV)

wherein the various symbols are as defined above, followed by hydrolysis of the compound of formula (XV) to give the corresponding compound of formula (I) in which R^5 is H; or

- i) where R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , W and A are as defined in claim 1, and m and/or n is 1 or 2, oxidising a corresponding compound in which m and/or n is 0 or 1; and
- j) if desired, converting a resulting compound of formula (I) into a pesticidally acceptable salt thereof.